



Course syllabus

Faculty of Technology
Kalmar Maritime Academy

4SJ02A Människa, teknik och organisation i en hållbar sjöfart, 7,5 högskolepoäng

Human Element in Sustainable Shipping, 7.5 credits

Main field of study
Maritime Science

Subject Group
Shipping

Level of classification
Second Level

Progression
A1N

Date of Ratification
Approved by Faculty of Technology 2015-05-22
The course syllabus is valid from spring semester 2016

Prerequisites
180 ECTS credits in a relevant area of maritime science and English language skills corresponding to English B, IELTS or TOEFL.

Objectives

Knowledge and understanding After completing the course, the participant shall have:

- Acquired knowledge and understanding of relevant human factor theories and their progression over the past decades.
- Acquired knowledge and understanding of human physical and mental abilities and limitations in work situations.

Competence and skills After completing the course the participant shall have:

- Attained the ability to describe, exemplify and reflect on how organizational issues and the work environment affect maritime safety and human performance.
- Developed the ability to independently and based on scientific knowledge identify, analyse and recommend solutions to a work environment or safety problem in a real case study, presented verbally and in writing.

Content

The course aims to deepen the participants' knowledge, skills and understanding of the role of the human element in a sustainable shipping industry.

The course includes the following elements:

- Terminology, theoretical background, development and the relationship between human element, human factors and ergonomics
- The systems view and sociotechnical systems
- Humans cognitive, mental and physical abilities and limitations in work situations
- Methods and tools for analysis and evaluation of human work

The course consists of self-studies on distance with a limited number of meetings. The first meeting is a start-up in Kalmar with information and lectures. The final meeting in Kalmar includes seminar, examination and course evaluation. Additional meetings may be added. Between meetings there will be activities on the e-learning platform MyMoodle.

Type of Instruction

Lecturers, seminars and activities on MyMoodle platform.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The course is assessed with the grades A-F. The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

The examination is based on written reports, presentations and active participation during seminars.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at Kalmar Maritime Academy's archive.

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 4HE01A Human Element i Sustainable Shipping

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

- Grech, Michelle Rita, Koester, Thomas & Horberry, Tim (2008). *Human Factors in the Maritime Domain*. Boca Raton: Taylor & Francis
- IMO. (2004). Resolution A.947(23). *Human element vision, principles and goals for the organization*. London: International Maritime Organization.
- Vicente, Kim (2004). *The Human Factor*. Toronto: Vintage Canada.

Reference literature

- Carayon, P. (2006). Human factors of complex sociotechnical systems. *Applied Ergonomics*, 37(4), 525-535. doi: 10.1016/j.apergo.2006.04.011
- Salvendy, G. (2006). *Handbook of Human Factors and Ergonomics* (3rd ed.). Hoboken, NJ: John Wiley & Sons.
- Wilson, J., R., & Corlett, N. (2005). *Evaluation of human work*. Taylor & Francis.